


<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>
	<p><b>AD No.: 2012-0254R1</b></p> <p><b>Date: 21 December 2012</b></p> <p>Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.</p>
<p>This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>	
<p><b>Design Approval Holder's Name:</b> INTERTECHNIQUE Aircraft Systems</p>	<p><b>Type/Model designation(s):</b> MC10, MF10 and MF20 Oxygen Mask Regulators</p>
<p>ETSO (JTSO) Authorisations: F.O.001, EASA.21O.10018220, DGAC France QAC 986489/SFACT/N, QAC 53194/SFACT/TC and QAC 53134/SFACT/TC.</p>	
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2012-0254 dated 29 November 2012.
<b>ATA 35</b>	<b>Oxygen – Flight Crew Oxygen Mask Regulator – Identification / Operational Procedure / Replacement</b>
Manufacturer(s):	Intertechnique (EROS)
Applicability:	<p>Flight crew oxygen mask regulators, having Part Number (P/N) MC10, MF10 and MF20 series, with serial numbers (s/n) as listed in Appendix 1 of this AD.</p> <p>The affected flight crew oxygen masks regulators are known to be installed on, but not limited to, aeroplanes manufactured by Airbus, ATR, Boeing, Bombardier (formerly Canadair, De Havilland Canada), Cessna, Gulfstream and McDonnell Douglas.</p>
Reason:	<p>In a repair station, improper maintenance on oxygen mask regulators was reported to Intertechnique: during an inspection of the oxygen test bench by its manufacturer, incorrect settings were noticed. This test bench setting discrepancy on the oxygen mask regulator could cause an improper mask dilution schedule.</p> <p>This condition, if not detected and corrected, could lead, in case of a diversion above 10 000 feet after a depressurization event, to the inhalation of air with improper content of oxygen, due to the bad dilution settings, thereby providing inadequate protection to the affected flight crew member against hypoxia, which can start from a headache and drowsiness and lead eventually to unconsciousness with severe consequence in term of aeroplane controllability.</p> <p>For the reasons described above, this AD requires the identification and replacement of all potentially affected units. This AD also requires installation of a placard and implementation of an operational procedure pending replacement of the affected units.</p>

	This AD is revised to allow accomplishment of the actions as required by paragraph (2) of this AD within 30 days after the effective date of the original issue of this AD.
Effective Date:	Revision 1: 21 December 2012 Original issue: 13 December 2012
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) Within 30 days after 13 December 2012 [the effective date of the original issue of this AD], inspect each flight crew oxygen mask regulator to identify the P/N and s/n in accordance with the instructions of Inter-technique Service Bulletin (SB) MCF-SBU-35-001.</p> <p>A review of aeroplane maintenance records is acceptable to make the determination as specified in this paragraph, provided those records can be relied upon for that purpose, and each flight crew oxygen mask regulator can be conclusively identified from that review.</p> <p>(2) If the P/N and s/n, identified as required by paragraph (1) of this AD, are listed in Appendix 1 of this AD, within 30 days after 13 December 2012 [the effective date of the original issue of this AD], accomplish the actions of either paragraph (2.1) or (2.2) of this AD:</p> <p>(2.1) Replace each affected flight crew oxygen mask regulator with a serviceable part, not having a P/N and s/n as listed in Appendix 1 of this AD, or with a part that has passed the test in accordance with the instructions of paragraph 3.A.(4) of Inter-technique SB MCF-SBU-35-001.</p> <p>(2.2) Amend the Aircraft Flight Manual (AFM) and install a placard, as follows:</p> <p><u>Aircraft Flight Manual</u></p> <p>In case of depressurisation, both pilots must use the mask regulator on 100% Demand mode or Emergency mode only.</p> <p>Insertion of a copy of this procedure into the applicable AFM is acceptable to comply with this requirement</p> <p>NOTE 1: For oxygen over-consumption, refer to applicable aeroplane type certificate holder limitations, if existing, depending on the aeroplane configuration and/or flight plan.</p> <p>NOTE 2: It is the operators' responsibility to assess the operational consequences of the oxygen over-consumption and ensure that the operational requirements with regard to Supplemental oxygen and Crew protective breathing equipment are still complied with. Operators are expected to amend, as applicable, their operations manual(s) accordingly.</p> <p><u>Placard installation</u></p> <p>Fabricate and install a placard on the flight crew oxygen mask container that states:</p> <div style="border: 1px solid black; padding: 5px; text-align: center; margin: 10px auto; width: fit-content;"> <p>USE SELECTOR on "100%" OR "EMERGENCY" ONLY</p> </div> <p>(3) Within 12 months after 13 December 2012 [the effective date of the original issue of this AD], unless already accomplished as required by paragraph (2.1) of this AD, replace each affected flight crew oxygen mask regulator with a serviceable part, not having a P/N and s/n as listed in Appendix 1 of this AD, or with a part that has passed the test in accordance with the instructions of paragraph 3.A.(4) of Inter-technique SB MCF-SBU-35-001. After replacement of each affected flight crew oxygen mask regulator on an aeroplane, the actions as required by paragraph (2.2) of this AD are no</p>

	<p>longer applicable and the AFM change and placard can be removed from the aeroplane accordingly.</p> <p>(4) From 13 December 2012 [the effective date of the original issue of this AD], do not install on an aeroplane a flight crew oxygen mask regulator with P/N and s/n as listed in Appendix 1 of this AD, unless it has passed the test in accordance with the instructions of paragraph 3.A.(4) of Intertechnique SB MCF-SBU-35-001.</p>
Ref. Publications:	<p>Intertechnique SB MCF-SBU-35-001 Revision 00 dated 25 October 2012.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p>
Remarks:	<ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> <li>2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.</li> <li>3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> <li>4. For any question concerning the technical content of the requirements in this AD, please contact: Mr Jean-Louis Taillefert at Abu Dhabi Intl. Airport Cargo Village Area, P.O. Box 106675 - United Arab Emirates, Tel: +971 2 61 08 201 - Fax: +971 2 57 57 686, E-mail <a href="mailto:Jean-Louis.Taillefert@zodiac aerospace.com">Jean-Louis.Taillefert@zodiac aerospace.com</a>, or</li> <li>5. For any question concerning the documentation (SB), please contact: Mr. Yann Laine at Intertechnique – Zodiac Services, Telephone +33 1 6486 6964, E-mail: <a href="mailto:yann.laine@zodiac aerospace.com">yann.laine@zodiac aerospace.com</a>.</li> </ol>

## APPENDIX I

## Crew Oxygen Mask Regulators with a potential default of calibration

P/N	s/n
MC10-04-101	30971
MC10-04-102	8449
MC10-04-105	72298
MC10-04-105	72995
MC10-04-110	22002
MC10-04-110	72023
MC10-04-110	80304
MC10-04-127	9781
MC10-04-127	15866
MC10-04-127	20724
MC10-04-127	47085
MC10-04-127	70673
MC10-04-127	115086
MC10-04-21	5993
MC10-04-21	103899
MC10-04-27	2783
MC10-04-27	5862
MC10-04-27	9596
MC10-04-27	26995
MC10-04-27	28566
MC10-04-27	29918
MC10-04-27	32175
MC10-04-27	37234
MC10-04-27	47410
MC10-04-27	103887
MC10-04-27	104945
MC10-04-27	MS0004
MC10-04-27	QR18373
MC10-04-27	QR4343
MC10-04-127	48573
MC10-08-103	117806
MC10-08-103	118051
MC10-08-103	118052
MC10-08-109	65949

P/N	s/n
MC10-08-109	67487
MC10-08-109	70940
MC10-08-109	71728
MC10-08-109	71731
MC10-08-109	72034
MC10-08-109	72893
MC10-08-109	72894
MC10-08-109	72895
MC10-08-109	77044
MC10-08-109	77659
MC10-08-109	78271
MC10-08-109	80766
MC10-08-109	81660
MC10-08-109	82595
MC10-08-109	82596
MC10-08-109	87531
MC10-08-109	87533
MC10-08-109	88122
MC10-08-109	90813
MC10-08-109	98806
MC10-08-109	100825
MC10-08-109	116010
MC10-08-109	116456
MC10-08-109	116457
MC10-08-109	117350
MC10-08-109	117351
MC10-08-109	117427
MC10-08-109	ET1797
MC10-08-109	ET1962
MC10-08-109	ET2507
MC10-08-109	SE08317
MC10-08-109	SE10019
MC10-08-109	SE12428

P/N	s/n
MC10-08-109	SE12715
MC10-08-109	SE13002
MC10-08-109	SE13029
MC10-08-109	SE13030
MC10-08-109	SE13031
MC10-08-109	SE15068
MC10-08-109	SE15069
MC10-08-109	SE15070
MC10-08-109	SE15153
MC10-08-109	SE15914
MC10-08-124	7207
MC10-08-124	10452
MC10-08-124	105701
MC10-08-124	105702
MC10-08-124	N/N
MC10-08-25	46128
MC10-08-25	117698
MC10-15-107	78225
MC10-15-107	96184
MC10-15-107	99990
MC10-15-107	99991
MC10-15-107	102489
MC10-15-107	107397
MC10-15-158	62321
MC10-15-158	65458
MC10-15-158	69301
MC10-15-158	70816
MC10-15-158	70817
MC10-15-158	72371
MC10-15-158	72381
MC10-15-158	91013
MC10-15-158	100012
MC10-15-158	110332

P/N	s/n
MC10-19-101	15728
MC10-19-151	21767
MC10-19-151	34372
MC10-25-01	10132
MC10-25-104	5585
MC10-25-104	17272
MC10-25-104	19907
MC10-25-104	31747
MC10-25-104	32982
MC10-25-104	34489
MC10-25-104	36534
MC10-25-104	39354
MC10-25-104	55947
MC10-25-104	67103
MC10-25-104	68699
MC10-25-104	73018
MC10-25-104	76556
MC10-25-104	77060
MC10-25-104	77061
MC10-25-104	77062
MC10-25-104	77063
MC10-25-104	91403
MC10-25-104	91989
MC10-25-104	ET1152
MC10-25-104	SE08564
MC10-25-124	30512
MC10-25-124	32993
MC10-25-124	SE00216
MC10-25-124	SE00220
MC10-32-101	88778
MC10-32-101	106291
MC10-35-101	62403
MF10-02-11	11977
MF10-02-11	51187
MF10-02-11	56005
MF10-02-11	56007
MF10-02-11	57380
MF10-02-11	58470

P/N	s/n
MF10-02-11	58471
MF10-02-11	58472
MF10-02-11	58473
MF10-02-11	62756
MF10-02-11	64723
MF10-02-11	68499
MF10-02-11	68594
MF10-02-11	68595
MF10-02-11	68598
MF10-02-11	68599
MF10-02-11	75378
MF10-02-11	77217
MF10-02-11	77775
MF10-02-11	77780
MF10-02-11	77781
MF10-02-11	77782
MF10-02-11	80629
MF10-02-11	81395
MF10-02-11	83542
MF10-02-11	83543
MF10-02-11	86076
MF10-02-11	87507
MF10-02-11	88237
MF10-02-11	88238
MF10-02-11	88239
MF10-02-11	92101
MF10-02-11	93233
MF10-02-11	93256
MF10-02-11	107991
MF10-02-11	107994
MF10-02-11	108002
MF10-02-11	108009
MF10-02-11	SE02611
MF10-02-11	SE05539
MF10-02-11	SER1
MF10-03-12	26412
MF10-04-01	37380
MF10-05-11	1135

P/N	s/n
MF10-05-11	28350
MF10-05-11	31597
MF10-05-11	32203
MF10-05-11	32228
MF10-05-11	33802
MF10-05-11	34512
MF10-05-11	38670
MF10-05-11	38705
MF10-05-11	39828
MF10-05-11	41924
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MF10-05-11	58841
MF10-05-11	58842
MF10-05-11	59830

P/N	s/n
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MF10-05-11	61037
MF10-05-11	61038
MF10-05-11	61312
MF10-05-11	62148
MF10-05-11	62340
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MF10-05-11	74185
MF10-05-11	74459
MF10-05-11	74565
MF10-05-11	76025
MF10-05-11	76028

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MF10-05-11	97846
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MF10-05-11	100600
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P/N	s/n
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MF10-05-11	SE00872
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P/N	s/n
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MF10-05-12	115109
MF10-05-12	115110
MF10-05-14	57867
MF20-003	58471
MF20-003	82252
MF20-003	82359
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P/N	s/n
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MF20-534	109541
MF20-534	109683
MF20-534	110018
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MF20-534	110525
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MF20-534	SE03119
MF20-534	SE03120
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MF20-534	SE05385
MF20-534	SE05397
MF20-534	SE05405
MF20-534	SE05444
MF20-534	SE05445
MF20-534	SE05480
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MF20-534	SE06166
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MF20-534	SE06931
MF20-534	SE06953
MF20-534	SE06999
MF20-534	SE07000
MF20-534	SE07002

P/N	s/n
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MF20-534	SE07753
MF20-534	SE07767
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MF20-534	SE08021
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MF20-534	SE08731
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MF20-534	SE08961
MF20-534	SE08962
MF20-534	SE08968
MF20-534	SE09809
MF20-534	SE10090
MF20-534	SE10809
MF20-534	SE10810
MF20-534	SE11402
MF20-542	115867
MF20-542	118743